INDUSTRIAL WASTEWATER DISCHARGE CLASS I PERMIT

Permit No: 52-1-841

FOR DISCHARGE OF WASTEWATER ISSUED BY ORANGE COUNTY SANITATION DISTRICT

In accordance with the provisions of the Wastewater Discharge Regulations of Orange County Sanitation District, herein referred to as "District",

KLEAN WATERS, INC.
314 W. FREEDOM AVENUE
ORANGE, CA 92865

hereinafter referred to as "Permittee", is hereby authorized to discharge industrial wastewater from the above identified facility into the District's sewer system in accordance with the conditions set forth in this permit. Such conditions are as specified in the following parts of this permit:

Part 1 - Effluent Limits and Flow Basis
Part 2 - Monitoring, Notification, and Reporting Requirements
Part 3 - Standard Conditions
Part 4 - Special Conditions

Compliance with this permit does not relieve the Permittee of its obligation to comply with the District's current Wastewater Discharge Regulations, any applicable pretreatment regulations, standards or requirements under local, State, and Federal laws, including any such regulations, standards, requirements or laws that may become effective during the term of this permit. Non-compliance with any term or condition of this permit constitutes a violation of the current Wastewater Discharge Regulations.

This permit shall become effective on June 1, 2013 and shall expire on December 31, 2014.

James E. Colston
Environmental Compliance Manager

Revised on

June 20, 2013

ORANGE COUNTY SANITATION DISTRICT, CALIFORNIA
10844 Ellis Avenue
Fountain Valley, CA 92728-8127
(714) 962-2411

PART 1 - EFFLUENT LIMITS AND FLOW BASIS

During the period from June 1, 2013 to December 31, 2014, Permittee is authorized to discharge industrial wastewater into the sewer system tributary to the District's sewerage facilities. The effluent discharge shall not exceed either the following concentration limits in mg/L or the mass emission rate limits in lbs/day. If your mass emission rate is based on flow, then your flow base is presumed to be 100000 gallons per day (gpd) of wastewater flow at the sampling point.

Company Name: KLEAN WATERS, INC.			**Permit No.:** 52-1-841	
Sewer Address:	**Flow Base:** 100000 gpd		**Effective Date:**	06/01/2013
314 W. FREEDOM AVENUE ORANGE, CA 92865	**WWAR Percent Loss:** **WWAR Fixed Loss:**	0	**Expiration Date:**	12/31/2014
Primary Category: CENTRALIZED WASTE TREATMENT – PART D	**Subcategory:** 40 CFR # 437.47		**Subpart:**	

DISCHARGE LIMITS

CONSTITUENT	Instantaneous Limit mg/L	Daily Max mg/L	4-Day Avg mg/L	Monthly Avg mg/L	Daily Max lbs/day	Monthly Avg lbs/day
2,4,6-Trichlorophenol	■	0.155	■	0.106	■	■
2-Methylphenol	■	1.920	■	0.561	■	■
4-Methylphenol	■	0.698	■	0.205	■	■
Antimony	■	0.249	■	0.206	■	■
Arsenic	2.000	0.162	■	0.104	■	■
BOD	■	■	■	■	15000	10000
CN(A)	1.000	1.000	■	■	■	■
CN(T)	5.000	5.000	■	5.000	■	■
Cadmium	1.000	0.474	■	0.096	■	■
Carbazole	■	0.598	■	0.276	■	■
Chromium	2.000	0.746	■	0.323	■	■
Cobalt	■	0.192	■	0.124	■	■
Copper	3.000	0.500	■	0.242	■	■
Dissolved Sulfides	0.500	0.500	■	■	■	■
Fluoranthene	■	0.054	■	0.027	■	■
Lead	2.000	0.350	■	0.160	■	■
Mercury	0.030	0.002	■	0.001	■	■
Nickel	10.000	3.950	■	1.450	■	■
Oil & Grease Min.	100.000	100.000	■	■	■	■
PCB	0.010	0.010	■	■	■	■
Pesticides	0.010	0.010	■	■	■	■
Silver	5.000	0.120	■	0.035	■	■
Tin	■	0.409	■	0.120	■	■
Titanium	■	0.095	■	0.062	■	■
Total Sulfides	5.000	5.000	■	■	■	■
Total Toxic Organics	0.580	0.580	■	■	■	■
Vanadium	■	0.218	■	0.066	■	■
Zinc	10.000	2.870	■	0.641	■	■
bis(2-ethylhexyl) phthalate	■	0.215	■	0.101	■	■
n-Decane	■	0.948	■	0.437	■	■
n-Octadecane	■	0.589	■	0.302	■	■
pH	6-12	6-12	■	■	■	■

SAMPLING POINT LOCATION: The above effluent limits apply at the sampling point located in the middle of the north wall.. The sample point is a below-ground sump and represents all industrial wastewater discharge from the facility.

Cyanide limits apply at the sampling point after cyanide treatment, but prior to dilution with other streams. If there is no cyanide treatment, the sample must be taken at the end of the cyanide process before dilution with other process streams. In the absence of cyanide process, the limits apply at the sampling point location described above (end of pipe).

PART 2 - SELF-MONITORING, NOTIFICATION AND REPORTING REQUIREMENTS

I. SELF-MONITORING REQUIREMENTS

Permittee shall conduct monitoring of its own wastewater effluent for the purpose of determining the status of compliance/non-compliance and user charges. Based on the results, Permittee shall make the necessary adjustments/corrections to bring the wastewater discharge into immediate compliance with its permitted limits. The specific requirements are as follows:

A. Monitoring/Sampling Requirements

From the effective date of the permit and until the permit is terminated or revised, Permittee shall monitor its wastewater discharge for the following parameters at the indicated frequency[1]:

Parameters	Measurement Frequency	Sample Type[2]	Procedure
Metals:			
Cadmium	Quarterly	Composite	Composite
Chromium	Monthly	Composite	Composite
Copper	Monthly	Composite	Composite
Lead	Quarterly	Composite	Composite
Nickel	Quarterly	Composite	Composite
Silver	Quarterly	Composite	Composite
Zinc	Quarterly	Composite	Composite
Cyanides:			
CN(T)	Quarterly	Composite	Composite
Organics[4]:			
624	Semi-Annual	Grab	four(4) grab samples which must be individually analyzed
bis(2-ethylhexyl) phthalate	Quarterly	Composite	Composite
Fluoranthene	Quarterly	Composite	Composite
Carbazole	Quarterly	Composite	Composite
n-Decane	Quarterly	Composite	Composite
n-Octadecane	Quarterly	Composite	Composite
2,4,6-Trichlorophenol	Quarterly	Composite	Composite
2-Methylphenol	Quarterly	Composite	Composite
4-Methylphenol	Quarterly	Composite	Composite

BOD	Quarterly	Composite	Composite
TSS	Quarterly	Composite	Composite
Oil & Grease Min.	Quarterly	Composite	four (4) grab samples which may be combined by the laboratory personnel prior to analysis
Arsenic	Monthly	Composite	Composite
Mercury	Quarterly	Composite	Composite
Antimony	Quarterly	Composite	Composite
Cobalt	Quarterly	Composite	Composite
Tin	Quarterly	Composite	Composite
Titanium	Quarterly	Composite	Composite
Vanadium	Quarterly	Composite	Composite
Flow (gal/day)[3]			
pH[3]			

[1]**NOTE: To the extent that special conditions in Part 4 of this permit require more extensive self monitoring, the special conditions shall apply.**

[2]Sample type is either composite or grab as defined in current Wastewater Discharge Regulations under Section 102.

[3]Flow and pH should be measured concurrently with composite sampling.

[4]See Attachment A Section 3c for a list of Total Toxic Organic constituents, if applicable.

B. Representative Sampling and Laboratory Analyses

Samples and measurements taken as required herein shall be representative of the volume and nature of the regulated industrial discharge during hours of production. All samples shall be taken at the sampling point location as designated in this permit. All equipment used for sampling and analysis must be routinely calibrated, inspected, and maintained to ensure its accuracy. All sampling and laboratory analyses shall be conducted in accordance with Attachment A.

C. **Frequency, Sampling Schedule and Due Dates for Submission of Reports**

Sampling of wastewater effluent and reporting of results shall be done in accordance with the schedule shown below. Sampling may be performed any day within the specified date range as designated in this permit. If sampling cannot be conducted within the specified date for any valid reason, the District must be notified in advance and in writing, of the reason(s) for the inability to sample and the new proposed sampling date.

1. **Quarterly and Semi-Annual Frequency Deadlines**

METALS		**Sampling Date**	**Report Submission Due Date**
First Quarter	(Jul 2013 - Sep 2013)	August 1 - August 16	August 31, 2013
Second Quarter	(Oct 2013 - Dec 2013)	November 1 - November 16	November 30, 2013
Third Quarter	(Jan 2014 - Mar 2014)	February 1 - February 16	February 28, 2014
Fourth Quarter	(Apr 2014 - Jun 2014)	May 1 - May 16	May 31, 2014
First Quarter	(Jul 2014 - Sep 2014)	August 1 - August 16	August 31, 2014
Second Quarter	(Oct 2014 - Dec 2014)	November 1 - November 16	November 30, 2014
BOD, TSS		**Sampling Date**	**Report Submission Due Date**
First Quarter	(Jul 2013 - Sep 2013)	August 1 - August 16	August 31, 2013
Second Quarter	(Oct 2013 - Dec 2013)	November 1 - November 16	November 30, 2013
Third Quarter	(Jan 2014 - Mar 2014)	February 1 - February 16	February 28, 2014
Fourth Quarter	(Apr 2014 - Jun 2014)	May 1 - May 16	May 31, 2014
First Quarter	(Jul 2014 - Sep 2014)	August 1 - August 16	August 31, 2014
Second Quarter	(Oct 2014 - Dec 2014)	November 1 - November 16	November 30, 2014
CYANIDES		**Sampling Date**	**Report Submission Due Date**
First Quarter	(Jul 2013 - Sep 2013)	August 1 - August 16	August 31, 2013
Second Quarter	(Oct 2013 - Dec 2013)	November 1 - November 16	November 30, 2013
Third Quarter	(Jan 2014 - Mar 2014)	February 1 - February 16	February 28, 2014
Fourth Quarter	(Apr 2014 - Jun 2014)	May 1 - May 16	May 31, 2014
First Quarter	(Jul 2014 - Sep 2014)	August 1 - August 16	August 31, 2014
Second Quarter	(Oct 2014 - Dec 2014)	November 1 - November 16	November 30, 2014
ORGANICS (EPA Method 624)		**Sampling Date**	**Report Submission Due Date**
First Half	(Jul 2013 - Dec 2013)	November 1 - November 16	November 30, 2013
Second Half	(Jan 2014 - Jun 2014)	May 1 - May 16	May 31, 2014
First Half	(Jul 2014 - Dec 2014)	November 1 - November 16	November 30, 2014
CATEGORICAL ORGANICS AND OIL & GREASE		**Sampling Date**	**Report Submission Due Date**
First Quarter	(Jul 2013 - Sep 2013)	August 1 - August 16	August 31, 2013
Second Quarter	(Oct 2013 - Dec 2013)	November 1 - November 16	November 30, 2013
Third Quarter	(Jan 2014 - Mar 2014)	February 1 - February 16	February 28, 2014
Fourth Quarter	(Apr 2014 - Jun 2014)	May 1 - May 16	May 31, 2014
First Quarter	(Jul 2014 - Sep 2014)	August 1 - August 16	August 31, 2014
Second Quarter	(Oct 2014 - Dec 2014)	November 1 - November 16	November 30, 2014

2. **Monthly, Weekly, and Daily Frequency Deadlines**

a. Samples must be collected in accordance with the requirements specified in Part 2 Section A, as applicable.

b. Depending on the self-monitoring frequency, sampling must be conducted in the following manner, as applicable:

(i) **Monthly Self-Monitoring**

A sample of the wastewater effluent shall be collected and analyzed a minimum of one (1) sampling day per month. The sampling day shall be rotated to the successively different plant operational day during each month of monitoring.

(ii) **Weekly Self-Monitoring**

A sample of the wastewater effluent shall be collected and analyzed a minimum of four (4) sampling days per month (once a week). The sampling day shall be rotated to the successively different plant operational day during each week of monitoring.

(iii) **Daily Self-Monitoring**

A sample of the wastewater effluent shall be collected and analyzed each day of discharge each month.

c. Reporting of monthly, weekly, and daily self-monitoring results must be done on a monthly basis. Self-monitoring reports must be submitted by the twentieth (20th) day of the month following sampling.

D. Requirements for Reporting Results

1. Self-Monitoring Reports

Permittee shall submit a Self-Monitoring Report (SMR) on the date(s) specified above. Monitoring results shall be summarized and reported on a District SMR form. The District will not accept formats other than what is shown in the SMR form; therefore, forms provided by the District or replicates must be used for reporting of results. Failure to receive the SMR forms does not relieve Permittee from the obligation to perform the self-monitoring and submit the report on the required date. The SMR form shall be completely filled-out, with copies of all laboratory results attached. The report shall indicate the concentration of all pollutants in the effluent for which sampling and analyses were performed, including water meter readings required for flow measurement.

If sampling performed by the permittee indicates a violation, the permittee shall notify the Source Control Division within 24 hours of becoming aware of the violation. The reporting may be accomplished by a telephone call, fax transmission, e-mail, or a personal visit to Source Control. The violation reporting shall contain the date and time of the wastewater sample, the discharge flow for the sample, a possible explanation for the violation(s), and the date scheduled for the resample.

2. Signatory Requirements

Prior to submittal of the SMR to the District, the results shall be verified and signed under penalty of perjury, by an authorized company official as defined in 40 CFR 403.

E. Additional Monitoring Requirements in Response to Non-compliance

1. Resampling

Upon submission of the SMR to the District by the required due date, the District will process the results for mass emission rate calculations, review the concentration results, and notify Permittee of the results. If the results indicate that a violation of the applicable concentration and/or mass discharge limits has occurred, a Notice of Violation will be issued and Permittee must repeat the sampling and pollutant analyses of the required parameters, and submit the results of the repeat analysis to the district within 30 days after becoming aware of the violation.

2. Reporting

a. The monitoring results shall be submitted as specified in E.1.

b. The requirements for reporting results, as described in D.1 and D.2, shall be followed for the additional monitoring requirements in response to non-compliance.

F. Requirements for Reporting Results of Voluntary Self-Monitoring

1. Any voluntary self-monitoring sample of the effluent obtained during a 24-hour period from the representative sampling point location identified in Part 1 of this permit, that is collected and analyzed in accordance with the guidelines shown in Attachment A, constitutes a valid sample. Results of the analysis for all valid samples shall be reported to the District, regardless of the outcome.

2. Self-monitoring results for all valid samples must be submitted using an official numbered Voluntary Self-Monitoring Report (VSMR) Form and received by the District within 30 days from the day the sampling event was concluded. Permittee shall obtain the official VSMR Form from the District, with a unique tracking/identification number for each day of self-monitoring.

3. The District will not consider VSMR Forms received after 30 days from the day the sampling event was concluded. Exceptions to the 30-day submittal policy due to extenuating circumstances or special situations shall be authorized by the District's General Manager or his/her designee.

4. Upon submission of the completed VSMR Form to the District by the required 30-day due date, the District will evaluate the sample results to determine compliance. If the results indicate that a violation of the applicable discharge limits has occurred, a notice of violation may be issued requiring Permittee to implement corrective measures.

II. NOTIFICATION REQUIREMENTS

A. Permittee shall comply with the notification requirements set forth in the current Wastewater Discharge Regulations:

1. Notification of Spill and Slug Loading

a. In the event Permittee is unable to comply with any permit condition due to a breakdown of equipment, accidents, or human error, or Permittee has reasonable opportunity to know that his discharge will exceed the discharge provisions of the user's permit, Permittee shall immediately notify the District by telephone. If the material discharged to the sewer has the potential to cause or result in a fire or explosion hazard, Permittee shall immediately notify the local fire department and the District.

b. Confirmation of this notification shall be made in writing no later than five (5) working days from the date of the incident. The written notification shall state the date of the incident, the reasons for the discharge or spill, what steps were taken to immediately correct the problem, and what steps are being taken to prevent the problem from recurring.

c. Such notification shall not relieve the user of any expense, loss, damage or other liability which may be incurred as a result of damage or loss to the District or any other damage or loss to person or property; nor shall such notification relieve the user of any fees or other liability which may be imposed by a District's Ordinance or other applicable law.

2. Notification of Bypass

a. Bypass of industrial wastewater to the sewer system is prohibited. The District may take enforcement action against the user, unless:

(i) Bypass was unavoidable because it was done to prevent loss of life, personal injury, or severe property damage;

(ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, elective slow-down or shut-down of production units or maintenance during periods of production downtime. This condition is not satisfied if adequate backup equipment could have been feasibly installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and,

(iii) Permittee submitted notices as required under 2.b.

b. If Permittee knows in advance of the need for a bypass, it shall submit a written request to allow the bypass to the District, if possible, at least ten (10) days before the date of the bypass.

c. The District may approve an anticipated bypass at its sole discretion after considering its adverse effects, and the District determines that the conditions listed in 2.a.(i-iii) are met.

d. Permittee shall provide telephone notification to the District of an unanticipated bypass that exceeds its permitted discharge limits within four hours from the time Permittee becomes aware of the bypass. A written report shall also be provided within five (5) days of the time Permittee becomes aware or could reasonably have been aware of the bypass. The report shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass. Failure to submit oral notice or written report may be grounds for permit revocation.

B. Notification regarding Planned Changes

Permittee shall notify the District 90 days in advance prior to any facility expansion, production increase, or process modifications which may result in new or substantially increased discharges or a change in the nature of the discharge. Permittee shall notify the District in writing of the proposed expansion and shall submit any information requested by the District for evaluation of the affect of such expansion on the Permittee's discharge to the sewer system.

III. OTHER REPORTING REQUIREMENTS

A. Slug Discharge Control Plan

Permittee shall develop, maintain and implement in accordance with 40 CFR 403.8(f)(2)(v) a Slug Control Plan to respond to spills, emergency bypass and any accidental discharges that may result in a violation of any permit limits or conditions, or may significantly exceed the normal flow to the sewer system or pollutant loading. The plan shall contain detailed procedures to be followed by permittee in responding to a slug discharge at the Permittee's facility. The procedures shall include provisions to eliminate endangerment of human health and safety by containment and clean up of the slug discharge, and prevent any violation of Permittee's discharge limits and the District's Wastewater Discharge Regulations (Ordinances). The Plan shall also provide procedures and facilitate immediate notification of the District of a slug discharge event.

Permittee shall review and update the Slug Control Plan every two years.

The Slug Discharge Control Plan, at a minimum, must contain the following:

1. Description of the permittee's sewer discharge practices including non-routine batch discharges.
2. Description of stored chemicals including type and characteristic, volume, and chemical hazard classification.
3. Procedures to prevent slug discharges to the sewer system.
4. Description of equipment for responding to slug discharges.
5. Procedures for inspection and maintenance of the chemical storage areas to assure proper daily handling.
6. A copy of an operation log sheet recording the maintenance performed, volume of spill, and corrective measures taken.
7. Procedures for proper training of key personnel for handling slug discharges.
8. Emergency telephone numbers for promptly reporting slug discharges to the appropriate governmental agencies.

B. Waste Minimization Requirements

Upon request by the District, Permittee shall provide waste minimization plans to conserve water, investigate product substitution, provide inventory control, implement employee education, and other steps as necessary to minimize waste produced.

C. Water and Tax Bill Submittal

Permittee shall submit to the District, copies of Water and Tax Bills within 30 days of receipt of such bills.

D. Changes in Company Information

Permittee shall immediately inform the District of any changes or inaccuracies in the following company information which is currently on file:

<table>
<tr><td>COMPANY NAME:
KLEAN WATERS, INC.</td><td>PHONE: (951) 595-6800
FAX: (951) 676-1666</td><td>LOCAL SEWERING AGENCY:
CITY OF ORANGE</td></tr>
<tr><td rowspan="2">MAILING ADDRESS:
28465 OLD TOWN FRONT ST., SUITE 224
TEMECULA, CA 92590</td><td rowspan="2">RESPONSIBLE OFFICER:
TIM MILLER
PRESIDENT</td><td>NO. OF EMPLOYEES: 2</td></tr>
<tr><td>WORK DAYS/YEAR: 260</td></tr>
<tr><td>SERVICE ADDRESS:
314 W. FREEDOM AVENUE
ORANGE, CA 92865</td><td>DESIGNATED SIGNATORY:
TIM MILLER
PRESIDENT</td><td>N.A.I.C.S. NUMBER:
562219</td></tr>
</table>

E. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate is a crime and may result in the imposition of criminal sanctions and/or civil penalties.

PART 3 - STANDARD CONDITIONS

I. PROHIBITIONS, LIMITS AND REQUIREMENTS

Permittee is required to comply with the prohibitions and limits on discharges set forth in Article 2 of the current Wastewater Discharge Regulations:

A. Prohibited Discharges
B. Prohibition on Dilution
C. Prohibition on Surface Runoff and Groundwater
D. Prohibition on Unpolluted Water
E. Prohibition on the Use of Grinders
F. Prohibition on Point of Discharge
G. Prohibition on Medical Waste
H. Prohibition on Disposal of Spent Solutions and Sludges

II. CIVIL PENALTIES

All users of the District's system and facilities are subject to enforcement actions administratively or judicially by the District, U.S. EPA, State of California Regional Water Quality Control Board, or the County of Orange District Attorney.

Any person who violates any provision of the current Wastewater Discharge Regulations; or any permit condition, prohibition or effluent limitation; or any suspension or revocation order shall be liable civilly for a sum not to exceed $25,000.000 per violation, for each day in which such violation occurs.

A. Administrative Civil Penalties

Administrative Civil Penalties may be assessed as follows:

1.) In an amount which shall not exceed two thousand dollars ($2,000.00) for each day for failing or refusing to furnish technical or monitoring reports;

2.) In an amount which shall not exceed three thousand dollars ($3,000.00) for each day for failing or refusing to timely comply with any compliance schedules established by the District;

3.) In an amount which shall not exceed five thousand dollars ($5,000.00) per violation for each day of discharge in violation of any waste discharge limit, permit condition, or requirement issued, reissued, or adopted by the District;

4.) In any amount which does not exceed ten dollars ($10.00) per gallon for discharges in violation of any suspension, revocation, cease and desist order or other orders, or prohibition issued, or adopted by the District

III. CRIMINAL PENALITIES

Any person who violates any provision of the Ordinance is guilty of a misdemeanor which upon conviction is punishable by a fine not to exceed $1,000.00 or imprisonment for not more than thirty (30) days, or both. Each violation and each day in which a violation occurs may constitute a new and separate violation.

IV. SEVERABILITY

The provisions of this permit are severable. If any provision of those permit limits and/or requirements, or the application thereof, to the Permittee is held invalid, the remainder of the permit limits and/or requirements shall remain in full force and effect.

V. OTHER CONDITIONS

A. Permittee is required to comply with all regulations and discharge limits in the current Wastewater Discharge Regulations and any attachments to this permit.

B. Except as expressly authorized by the District, upon the sale or transfer of ownership of the business for which this permit is issued, this permit shall be void. The permittee shall notify the District in writing prior to the transfer of ownership and shall give a copy of the existing permit to the new owner or operator.

C. Issued Permits are for a specific user, for a specific operation at a specific location, create no vested rights, and are non-transferable unless conditions as stated in the Ordinance are met. If transfer is allowed, a copy of the existing permit must be given to the new owner or operator. Industrial Wastewater Discharge permits, their concentration limits or their mass emission rates shall not be transferred for an operation at a different location.

D. Permittee shall maintain plant records relating to wastewater discharge and waste manifests for a minimum of three years.

PART 4 - SPECIAL CONDITIONS FOR PERMIT NO. 52-1-841

- Permittee shall obtain MONTHLY readings of the industrial wastewater volume discharged to the sewer for the purpose of determining accurate billing of user charges and submit a report to the District on the 20th of the following month using the report form that will be provided to Permittee each month. Failure to receive a form from the District does not exempt Permittee from obtaining and submitting flow data for that period.

- Permittee shall comply with the effluent meter calibration reporting as specified in **Attachment 161**.

  Since Permittee uses an in-pipe meter, the following schedule must be used for calibration and reporting of the data.

Type of Calibration	Report Due Date
Hydraulic	11/1/2013
Hydraulic	11/1/2014 (the report must be submitted with the permit renewal application)

- Permittee is required to submit an annual certification statement that is signed by a responsible corporate officer and certifies that the facility is operating its treatment systems to provide equivalent treatment as set forth in the initial certification. If Permittee has modified its treatment systems, the facility should submit a description of the modified systems and information and supporting data to establish that the modified system will achieve equivalent treatment.

- Permittee will accept only nonhazardous waste for treatment and discharge to sewer as defined in State of California Dept. of Toxic Substances Title 22 regulations.

- Permittee shall maintain sampling data and customer profiles for verification of nonhazardous materials acceptance and treatment for OCSD review upon request. Sampling data and customer profiles for all sources from outside of the OCSD's service area shall be submitted for review prior to acceptance, treatment, and discharge of wastewater from that source.

- Permittee shall notify OCSD of any wastewater delivered for treatment with known concentrations of 1,4-dioxane and/or n-nitrosodimethylamine (NDMA).

- Permittee shall inform customers that OCSD reserves the right to inspect and sample the source of any wastewaters discharged into OCSD's sewerage system upon reasonable notification.

- OCSD reserves the right to refuse any wastewater that will cause violation of its NPDES permit conditions, upset the treatment process, or adversely affect its ability to dispose of biosolids.

ATTACHMENTS

PERMIT NO. 52-1-841

KLEAN WATERS, INC.

ATTACHMENT A
PERMIT NO. 52-1-841
KLEAN WATERS, INC.

SELF-MONITORING REQUIREMENTS

1. **Sampling and Analysis of Heavy Metals**

   a. **Composite Sampling.** Permittee shall collect and analyze a 24-hour composite sample of the wastewater effluent for heavy metals at a frequency specified in **Part 2** of the permit. All effluent sampling must be conducted using an automatic sampling device which is capable of collecting samples at 15-minute intervals during all hours of discharge in a 24-hour day. Flow-proportional samples are acceptable with a minimum of 96 samples collected per 24 hours of discharge. For batch dischargers, a grab sample is acceptable for a well-mixed batch; otherwise, a composite sample during the period of discharge must be obtained.

   b. **Discharge Flow.** Water meter readings shall be obtained during the start and end of composite sampling to determine the volume of water discharged during the 24 hour sampling period. Meter readings are necessary to determine the total flow needed for calculation of the daily mass emission rate for the actual wastewater discharged. Additionally, the start and stop times must be recorded. The units in which the water meter readings are expressed must be properly ascertained.

   Permittee shall measure and record daily total flow using flow measurement devices and methods that ensure an accurate measurement of the volume of monitored discharge. The use of effluent meters provides an accurate measurement of the volume discharged; however, in the absence of effluent meters, the OCSD accepts the use of incoming water meters or process meter totalizers with appropriate standard deductions such as domestic, process, and landscape losses. These deductions will be applied by the OCSD, upon processing of the self-monitoring report, to determine the volume of wastewater discharged to the sewer system. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurement is consistent with the accepted capability of that device.

   c. **Laboratory Analyses.** All wastewater samples shall be collected and analyzed in accordance with the appropriate procedures contained in 40 CFR 136. Where 40 CFR 136 does not include sampling or analytical techniques for the pollutants in question, analyses shall be performed using the most current edition of *"Standard Methods for the Examination of Water and Wastewater"*. Wastewater analyses shall be performed by a laboratory utilizing the approved method for performing the analyses on the required constituents. Upon the OCSD request, Permittee shall obtain from their laboratory and furnish to the OCSD, information regarding test methods and equipment used, including quality assurance/quality control (QA/QC) information. Other information deemed necessary by the OCSD to determine the adequacy, accuracy, and precision of the results may also be required.

2. **Sampling and Analysis for Cyanides**

   a. **Sampling.** Permittee shall collect and analyze a sample of its wastewater effluent for cyanides at a frequency specified in **Part 2** of the Permit. All sampling for cyanide must be conducted by taking grab samples of the wastewater after cyanide treatment, but prior to dilution with other streams. If there is no cyanide treatment, the samples must be taken at the end of the cyanide process before dilution with other process streams. A minimum of four grab samples shall be taken independently during hours of operation within a 24-hour period. The grab samples may be composited by the laboratory personnel prior to analysis. Proper sampling and preservation techniques in accordance with EPA requirements must be used to ensure representative sample results.

   b. **Laboratory Analyses.** All wastewater samples shall be collected and analyzed for cyanides in accordance with the appropriate procedures contained in 40 CFR 136 using EPA Methods. Wastewater analyses shall be performed by a laboratory utilizing the approved method for performing the analyses on the required constituents. Upon the OCSD request, Permittee shall obtain from their laboratory and furnish to the OCSD, information regarding test methods and equipment used, including QA/QC information. Other information deemed necessary by the OCSD to determine the adequacy, accuracy, and precision of the results may also be required.

3. **Sampling and Analysis for Total Toxic Organics (TTOs)**

   a. **Sampling.** Permittee shall collect and analyze samples of the wastewater effluent at the sample point for TTOs at a frequency specified in **Part 2** of the permit. All effluent sampling for volatile organic compounds must be conducted by taking grab samples of the wastewater effluent. A minimum of four grab samples shall be taken independently during hours of operation within a 24 hour period. Each sample shall be analyzed independently for toxic organic constituents present in the facility. The average concentration from the four grab sample results with concentrations greater than 10 µg/L shall be used to determine compliance with TTOs mass emission and/or concentration limits.

   b. **Laboratory Analyses.** All wastewater samples shall be collected and analyzed in accordance with the appropriate procedures contained in 40 CFR 136 using EPA Methods (i.e., for Purgeable Halocarbons and Aromatics, use Methods

601 and 602, or 624). Wastewater analyses shall be performed by a laboratory utilizing the approved method for performing the analyses on the required constituents. Upon the OCSD request, Permittee shall obtain from their laboratory and furnish to the OCSD, information regarding test methods and equipment used, including QA/QC information. Other information deemed necessary by the OCSD to determine the adequacy, accuracy, and precision of the results may also be required.

c. **TTO Constituents.** The TTO limit is a summation of individual values greater than 0.01 milligrams per liter for the following organics listed under a specific test method:

Method 624 - 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,2-Dichloropropane, Benzene, Bromodichloromethane, Chloroform, Ethylbenzene, Methylene Chloride, Tetrachloroethene, Toluene, Trichloroethene

Method 625 – Bis(2-ethylhexyl) phthalate, Fluoranthene, Carbazole, n-Decane, n-Octadecane, 2,4,6-Trichlorophenol, 2-Methylphenol, 4-Methyphenol

4. **Sampling and Analysis of BOD and TSS**

a. **Composite Sampling.** Permittee shall collect and analyze a 24-hour composite sample of the wastewater effluent at the sample point for BOD and TSS at a frequency specified in **Part 2** of the permit. All effluent sampling must be conducted using an automatic sampling device which is capable of collecting samples at 15-minute intervals during all hours of discharge in a 24-hour day. Flow-proportional samples are acceptable with a minimum of 96 samples collected per 24 hours of discharge. For batch dischargers, a grab sample is acceptable for a well-mixed batch; otherwise, a composite sample during the period of discharge must be obtained.

b. **Discharge Flow.** Water meter readings shall be obtained during the start and end of composite sampling to determine the volume of water discharged during the 24 hour sampling period. Meter readings are necessary to determine the total flow needed for calculation of the daily mass emission rate for the actual wastewater discharged. Additionally, the start and stop times must be recorded. The units in which the water meter readings are expressed must be properly ascertained.

Permittee shall measure and record daily total flow using flow measurement devices and methods that ensure an accurate measurement of the volume of monitored discharge. The use of effluent meters provides an accurate measurement of the volume discharged; however, in the absence of effluent meters, the OCSD accepts the use of incoming water meters or process meter totalizers with appropriate standard deductions such as domestic, process, and landscape losses. These deductions will be applied by the OCSD, upon processing of the self-monitoring report, to determine the volume of wastewater discharged to the sewer system. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurement is consistent with the accepted capability of that device.

c. **Laboratory Analyses.** All wastewater samples shall be collected and analyzed in accordance with the appropriate procedures contained in 40 CFR 136 using EPA Methods. Wastewater analyses shall be performed by a laboratory utilizing the approved method for performing the analyses on the required constituents. Upon the OCSD request, Permittee shall obtain from their laboratory and furnish to the OCSD, information regarding test methods and equipment used, including QA/QC information. Other information deemed necessary by the OCSD to determine the adequacy, accuracy, and precision of the results may also be required.

5. **Sampling and Analysis for Oil and Grease (O&G)**

a. **Sampling.** Permittee shall collect and analyze samples of the wastewater effluent at the sample point location for O&G at a frequency specified in **Part 2** of the permit. A minimum of four grab samples shall be taken independently during hours of operation within a 24-hour period. The grab samples may be composited by the laboratory personnel prior to analysis. Proper sampling and preservation techniques, in accordance with EPA requirements, must be used to ensure representative results.

b. **Laboratory Analyses.** All wastewater samples shall be collected and analyzed in accordance with the appropriate procedures contained in 40 CFR 136 using EPA Methods. Wastewater analyses shall be performed by a laboratory utilizing the approved method for performing the analyses on the required constituents. Upon the OCSD request, Permittee shall obtain from their laboratory and furnish to the OCSD, information regarding test methods and equipment used, including QA/QC information. Other information deemed necessary by the OCSD to determine the adequacy, accuracy, and precision of the results may also be required.

ORANGE COUNTY SANITATION DISTRICT

ATTACHMENT 161

EFFLUENT FLOW METER CALIBRATION REQUIREMENTS

I. GENERAL

Permittee shall provide an effluent flow measuring device that is suitable for the application and that accurately measures and records the entire volume of industrial wastewater discharged to the sewer system with a minimum accuracy of ±5% at all times.

FLOW MEASURING DEVICE

The most common flow measuring device is an open-channel flow meter, which is acceptable to the District. Other types of flow measuring devices, such as in-line (in-pipe) flow meters may be acceptable if Permittee demonstrates that the installation of an open-channel flow meter is not feasible and that the in-line flow meter functions with the same level of accuracy. The flow measuring device must be equipped with:

- A momentary contact-closure pulse-signal generating device that can be used to activate an automatic sampling device at uniform increments of discharge volume. The contact closure must be set at a rate to provide at least 50 aliquots during a 24-hour period.
- A flow metering system to accurately measure the expected range of the flow (minimum, average, and maximum) with an accuracy of a minimum of ±5%.
- A recorder and a totalizer that continuously record the volume, time, and date of flow discharged to the District's sewer system. **The District will not accept a flow meter that has a resettable totalizer.**

CALIBRATION REQUIREMENTS

To ensure proper operation and continued accuracy of the flow measuring device, Permittee is required to conduct calibration and performance maintenance of the device. Permittee is required to meet, as a minimum, the following requirements for calibration and maintenance:

Calibration shall be conducted under the direct supervision of an engineer registered in the State of California, and in accordance with procedures prepared by the registered engineer. The engineer conducting the calibration shall certify the calibration report submitted to the District.

A. Hydraulic Calibration

Hydraulic calibration must check and calibrate the entire flow meter system and its components. The calibration of the full system shall include calibration of all associated instruments and appurtenances. Hydraulic calibration requires that the system be checked by:

1. Comparing a known flow induced into the system independent of the installed flow metering device at the facility.
2. Performing the calibration with instrumentation and method with a minimum accuracy of ±2% or better.
3. Testing and calibrating the flow metering device at minimum, maximum, and average daily flows discharged to the sewer system.

4. Using appropriate manufacturer's certified calibration curves or data for the flow meter device used at the facility.
5. Conducting in-line flow meter calibration using a calibration simulator system provided or approved by the manufacturer to simulate flow conditions and output to instrumentation.

B. Instrument Calibration

Instrument calibration must set the accuracy of the measuring and recording instrumentation by:

1. Testing at minimum, average, and maximum flows that represent actual daily flow conditions.
2. Conducting the calibration using appropriate procedures approved by a California Registered Professional Engineer.

C. Calibration Frequency and Reporting Schedule

1. Open-channel flow meters must be hydraulically calibrated at least once every two years or as determined by the District.
2. Open-channel flow meters must be instrument-calibrated yearly or as determined by the District.
3. In-pipe meters must be hydraulically calibrated at least once a year or as determined by the District.
4. All calibrations must be performed within 30 days prior to report submittal.
5. All new flow meters are required to be hydraulically calibrated after initial installation.
6. The calibration report, including all appropriate information and data, must be submitted to the District in accordance with the requirements and schedule set forth by the District.

EFFLUENT FLOW METER MAINTENANCE

The District requires permittees that operate effluent flow meters to have a program of regular maintenance to ensure proper operation of the meters and a continued minimum accuracy of ±5% which, as a minimum, includes:

- All parts of the flow metering device that require cleaning should be cleaned on a monthly basis.
- Accurate records of any cleaning or maintenance of the meter must be kept and made available upon the District's request.

V. CALIBRATION REPORT

Permittee shall provide to the District all the calibration test and maintenance information accompanied by a certification of test results signed by the California Registered Professional Engineer performing the calibration and affixed with the engineer's current Registered Engineer stamp. The report shall also be certified by Permittee's responsible officer or designated signatory.

Failure to provide the certification and all the information required accurately and completely will be a violation of permit conditions and may result in enforcement actions, including penalties for failure to report.

EFFLUENT FLOW METER CALIBRATION REPORT INSTRUCTIONS

Company Information: The company name, sewer address, and mailing address as listed in the permit.

1. **Effluent Flow Meter Location**:

- Select the appropriate meter location based on the schematics shown on the Effluent Flow Meter Location Form on Page 3.

2. **Effluent Meter Description**:

- Check the appropriate box(es) to identify the type of flow meter.

3. **Flow Measuring System Details**:

- Provide the effluent flow meter specification, including the size and brand of devices and range, instrument span and range, contact closure frequency, etc. and any additional information pertinent to the calibration.

4. Provide the average and the back flows used by the calibration engineer to determine the calibration flows. The flows must be the **current** maximum and average flows of the facility. The flow meter system must be tested at a minimum of three (3) different known flow rates, such as the actual, minimum, maximum, and average flow rates discharged.

5. **Calibration Results**:

- Complete the hydraulic and instrumentation calibration results table.
- Submit to the District a copy of all data collected, any calculations performed, and any other information pertinent to the calibration.

6. **Method of Calibration**:

- Provide a complete and detailed description of the method of calibration, including a description of any special pieces of equipment used.
- In case of an in-pipe flow meter, provide a description of the calibrator/simulator used. If the calibration is performed at the manufacturer's facility, Permittee must provide the name of the facility, address, contact person for the manufacturer, and telephone number.
- Manufacturer's certified calibration curves or data, or recent laboratory curves or data, must be submitted for any manufactured flow metering device used to check the calibration of the flow monitoring system.
- **Comparison of the effluent flow monitoring system with incoming water meter readings is not acceptable as a valid calibration check**.

7. **Corrective Measures**:

- All effluent flow monitoring systems must indicate, record, and totalize within ±5% of the actual discharge flow rate. If the system does not perform within these limits, appropriate corrective action must be taken. Prior to any major system modifications, a description and plans, if necessary, of the proposed modifications shall be submitted to the District for approval. Any minor adjustments or parts replaced should be described in the report to the District.

EFFLUENT FLOW METER CALIBRATION REPORT

Company Name: _____ Permit No.: _____

Discharge Address: _____

Mailing Address: _____

1. Meter Location *[Use Meter Location Form (page 3) to identify location]*

☐ a ☐ b ☐ c ☐ d ☐ Other: (Attach sketch)

2. Effluent Meter Description

Open Channel

A. Flume:
- ☐ Parshall Flume
- ☐ Palmer-Bowlus Flume
- ☐ Trapezoidal
- ☐ Other, Specify: _____

B. Weir.
- ☐ V-notch
- ☐ Rectangular
- ☐ Trapezoidal
- ☐ Other, Specify: _____

C. Other Description: _____

In-line
- ☐ Magnetic
- ☐ Propeller
- ☐ Ultrasonic
- ☐ Other, Specify: _____

3. Flow Metering System Details

Primary Element

Size: _____

_____

Manufacturer: _____

Count

Secondary Element

Manufacturer:

Recorder's 100% span = _____ GPM

Totalizer Units: = _____ Gallons per

Sampling Signal Contact Closure Frequency: 1 closure per _____ gallons discharged.

4. Current Facility Wastewater Discharge Rate to Sewer Determined by Calibration Engineer

Average _____GPM

Peak _____GPM

EFFLUENT FLOW METER CALIBRATION REPORT

5. Calibration Results

Type of Calibration: ☐ Hydraulic ☐ Instrument

Calibration System		Existing Meter				Error	
Flow Rate GPM	Total Discharge Gallons	Primary Element's Head	Flow Rate GPM Indicator	Flow Rate GPM Recorder	Total Discharge Gallons	Recorder	Totalizer

A copy of all data collected and of any calculations performed must be attached to this form.

6. Method of Calibration *(attach additional sheets if necessary)*

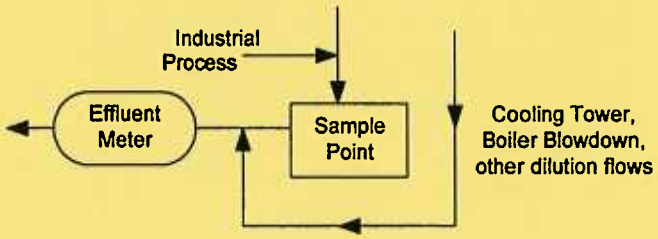
Hydraulic: (For in line flow meters describe calibration/simulator system)

Instrument:

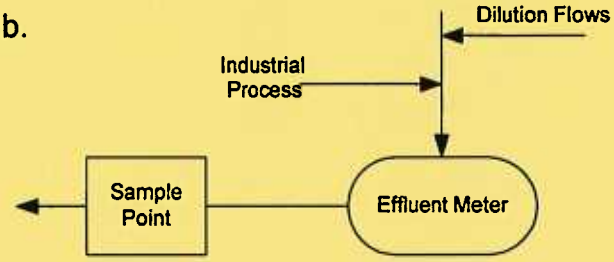
7. **Corrective Measures** (describe condition of flow meter prior to calibration and state if any adjustments were made):

EFFLUENT FLOW METER LOCATION FORM

☐ a.



☐ b.



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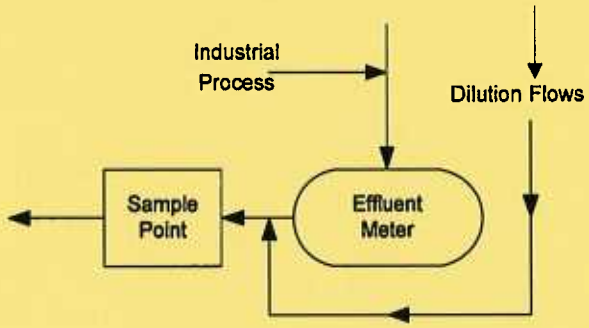
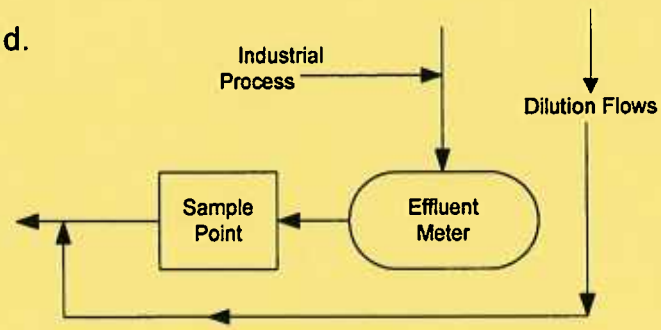


☐ d.



☐ Other

Please provide a schematic of the location of the effluent flow meter

EFFLUENT FLOW METER MAINTENANCE RECORDS

Company: _____ Permit No.: _____

Discharge Address: _____

Mailing Address: _____

Name of Responsible Person: _____ Telephone No. _____

Recorder's 100% Span: _____ GPM Totalizer: _____ Gallons per Count

Type of Flow Meter: _____

Recorder Chart Change Frequency: ☐ Daily ☐ Weekly ☐ Monthly

REGULAR CLEANING MAINTENANCE				
Primary Element Cleaned	Level Meas. Equipment Cleaned	Other (describe)	Date	By

CERTIFICATION OF CALIBRATION CHECK

(Certification of Test Results by a California Registered Professional Engineer)

I hereby certify that I am knowledgeable in the field of wastewater flow measurement and that I have supervised the calibration of the flow monitoring system as described on the previous page, and also have reviewed and approved all details of the method of calibration. I consider the calibration method and procedures used to be technically sound, and assume professional responsibility for the validity and accuracy of the results reported.

_____
(Signature)

_____
(Full Name – Please Print or Type)

_____ _____ _____
(Calif. Professional Engineering Cert. No.) (Engineering Discipline) (Date)

CERTIFICATION OF TEST RESULTS BY AN ADMINISTRATIVE OFFICIAL OF THE COMPANY

_____ _____
(Company Name) (Permit No.)

I hereby certify that the flow monitoring system certified as properly calibrated above is so arranged and operated, so as to accurately measure and record the industrial wastewater flow to the sewer system.

_____
(Signature)

_____
(Full Name – Please Print or Type)

_____ _____
(Administrative Position in Company (Date)